AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-183

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

********** AMSAT 2006 Space Symposium **********

The AMSAT web team has posted informational pages on the AMSAT web site. You can find the announcement with many links at:
http://www.amsat-org/amsat-new/symposium

Details of the Space Symposium Call for Papers can be viewed at:
http://www.amsat.org/amsat-new/symposium/2006CallForPapers.php

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SB SAT @ AMSAT $ANS-183.01
AMSAT Space Symposium Registration is Now Online

AMSAT News Service Bulletin 183.01
From AMSAT HQ SILVER SPRING, MD.
July 2, 2006
To All RADIO AMATEURS
BID: $ANS-183.01

Online registration and hotel reservation for the 2006 AMSAT Space Symposium has been posted to the AMSAT website, and information about the Symposium has been expanded. The 2006 AMSAT Space Symposium will be held October 6, 7 and 8 at the Crowne Plaza in Foster City California in the beautiful San Francisco Bay Area.

Please visit http://www.amsat.org/amsat-new/symposium for additional information and an index to the expanded Symposium web pages.

The expanded information includes:
- Online Registration for the Symposium including banquet menu and tour selections
- Online Hotel Reservations at the AMSAT Discounted Symposium Rate
- Information about the Sunday Trip to NASA Ames
- Information for Exhibitors and Vendors
- A Donated Prizes list of prizes to be awarded during the Symposium

- Symposium Tour Information and Tour Signup
- Enhanced California Tourism information (with links!)
- Sporting events and shopping information
- A Ride Sharing system

For the first time AMSAT is matching up drivers and riders who may be driving to the Symposium. Sharing a ride is a wonderful way to ease parking congestion and expenses, while sparing the air. You can sign up as a local participant who is driving in each day, or as a long distance driver coming from Southern California and surrounding states. Please visit the "Ride Sharing" link from the main Symposium page for additional information.

This year AMSAT will provide a limited amount of space for vendors and exhibitors. Exhibitors and demonstrations will have space in a breakout room adjacent to the main Symposium room, and vendors will be located in the foyer outside the Symposium room. Vendor space is limited, so space will be reserved for vendors donating prizes for the Symposium first. Please see the "Exhibitors and Vendors" link from the main Symposium page.

In addition to online registration you can download the registration form in PDF format and mail it in. Registration forms will also be included in the next edition of the AMSAT Journal and with AMSAT Board election ballots.

Welcome to the Bay Area!

[ANS thanks Emily Clarke, N1DID, Symposium Chairperson, for the above information]

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SB SAT @ AMSAT $ANS-183.02
Five Hams in Space - Three Will Remain On-Orbit With ISS

AMSAT News Service Bulletin 183.02
From AMSAT HQ SILVER SPRING, MD.
July 2, 2006
To All RADIO AMATEURS
BID: $ANS-183.02

When the STS-121 Mission is launched it will have three radio amateurs aboard. These three Discovery crew radio amateurs will join with the two hams already aboard the ISS for a total of five radio amateurs in space. The radio amateurs aboard Discover are Mission Specialists Lisa Nowak, KC5ZTB, Stephanie Wilson, KD5DZE, and European Space Agency (ESA) astronaut and Mission Specialist Thomas Reiter, DF4TR.

Reiter will remain on the ISS as part of the Expedition 13 and 14 crews joining with Expedition 13 Commander and cosmonaut Pavel Vinogradov, RV3BS, and Flight Engineer and NASA Station Science Officer Jeff Williams, KD5TVQ.

The Discovery Shuttle carries no Amateur Radio equipment on this mission.

[ANS thanks ARISS and the ARRL for the above information]

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SB SAT @ AMSAT $ANS-183.03
Astronaut Still Seeks QSLS For DXCC From Space

AMSAT News Service Bulletin 183.03
From AMSAT HQ SILVER SPRING, MD.
July 2, 2006
To All RADIO AMATEURS
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International Space Station Expedition 12 Commander Bill McArthur, KC5ACR, reports logging 130 DXCC entities from NA1SS while on orbit, but the DX QSLs have been slow in coming. To date McArthur has only about one-third of the entities confirmed for a special DXCC from space.

DX stations that worked McArthur at NA1SS during Expedition 12 are urged to send QSL cards to:

   ARRL
   ARISS QSL -- Exp 12
   225 Main St.
   Newington, CT 06111-1494 USA

DX stations may also QSL via the routes on the Amateur Radio on the International Space Station (ARISS) Web site:
http://www.rac.ca/ariss/oindex.htm#QSL's

They will take longer to be counted. If you've already sent a card "via the buro," ARISS asks that you send another to the ARRL ARISS QSL address.

As of June 20, McArthur has these entities confirmed from NA1SS:
Alaska, Antarctica, Argentina, Australia, Belgium, Brazil, Chile, Colombia, England, France, Gibraltar, Hawaii, India, Israel, Japan, Mariana Is, Mexico, the Netherlands, New Zealand, Panama, Puerto Rico, South Cook Is, South Africa, Spain, Switzerland, Thailand, Turkey, United States, Uruguay and Venezuela.

[ANS thanks The ARRL Letter, Vol. 25, No. 25 for the above information]

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SB SAT @ AMSAT $ANS-183.04
New Jersey 7th Grader Helps with ARISS QSO

AMSAT News Service Bulletin 183.04
From AMSAT HQ SILVER SPRING, MD.
July 2, 2006
To All RADIO AMATEURS
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Nick, KC2ONP, a seventh grader at New Providence Middle School, served as the control operator during the June 5 ARISS school contact with the Salt Brook Elementary School in New Providence, New Jersey. All of the Salt Brook students who participated in the contact with NA1SS are members of the Salt Brook Statics, a ham radio club at the school mentored by the New Providence Amateur Radio Club.

An audience of some 600 fellow students, parents, faculty, dignitaries and news media packed the school's auditorium for the contact. Another 300 students at Liberty Middle School in West Orange, New Jersey listened in.

ARISS is a nine-nation educational outreach with US participation by ARRL, AMSAT and NASA.

[ANS thanks ARISS and the ARRL for the above information]

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SB SAT @ AMSAT $ANS-183.05
Old US Satellite Passes Space Station Without Incident

AMSAT News Service Bulletin 183.05
From AMSAT HQ SILVER SPRING, MD.
July 2, 2006
To All RADIO AMATEURS
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An old U.S. Air Force spy satellite named Hitch Hiker 1 passed close but harmlessly by the International Space Station, a top ballistics expert with Russia's mission control center told the RIA Novosti news service June 27.

Hitch Hiker 1, launched aboard a Thor-Agena D rocket from Vandenberg Air Force Base, Calif., on June 27, 1963, closed within 1,000 feet of the space station at a combined speed of more than 32,000 miles (52,000 kilometers) an hour.

Hitch Hiker, whose mission remains classified, was thought to be designed to detect Soviet Union nuclear weapons tests from its polar orbit.

"Our calculations have been correct - the object flew past the station," Nikolai Ivanov told the news service, adding the ISS crew had not been instructed to try to photograph Hitch Hiker, because it was moving at such a high speed.

"The speed was more than 14 kilometers (9 miles) per second, and it was impossible to record it," Ivanov said. He noted that the U.S. Space Catalog contains more than 10,000 various objects of different sizes currently in orbit around Earth - including the space station.

"Only 10 percent of these objects, each of which has a number, are operable spacecraft, and the rest are just space garbage," Ivanov said.

He added, however, that if mission controllers' calculations had been incorrect, the satellite could have pierced or several damaged the station. He said Russian and NASA systems had been monitoring the encounter.

"The ISS had a special procedure, developed in advance, for emergency maneuvers to swerve away from space garbage," Ivanov said. "The ISS has used six such maneuvers in its history - four with the help of Progress s pacecraft and two using shuttles."

[ANS thanks Space Daily Express for the above information]

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SB SAT @ AMSAT $ANS-183.06
SMART-1 Lunar Mission Prepares for the End

AMSAT News Service Bulletin 183.06
From AMSAT HQ SILVER SPRING, MD.
July 2, 2006
To All RADIO AMATEURS
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After sixteen months orbiting the Moon, ESA's lunar mission is preparing for the end of its scientific exploration. On 19 June, SMART-1 mission

controllers initiated a 17-day series of manoeuvres aimed at positioning the spacecraft to enhance science data return as the mission winds down.

SMART-1, Europe's successful first Moon mission, is scheduled to end on 3 September 2006, impacting on the Moon's surface in a disposal plan similar to that of many earlier lunar missions.

The recently started manoeuvre campaign aims to avoid having the space-craft intersect with the Moon at a disadvantageous time from the scientific point of view, as it would have naturally about 17 August if left alone.

Because the spacecraft is out of fuel the use of the electric propulsion system (the ion engine) had to be ruled out. "The manoeuvre strategy consists of a series of reaction-wheel off-loadings combined with about three hours of intermittent thrust centred at apolune (point of furthest distance from the Moon) during the next 74 orbits," said Octavio Camino, Spacecraft Operations Manager at ESOC.

The off-loading consists of braking a set of spinning wheels inside the spacecraft, which has the effect of transferring angular momentum from the wheels to the spacecraft and hence changing its velocity.

"We use asymmetric firing of the attitude thrusters to produce a small velocity variation aligned with the flight direction. This will change the orbit by an accumulative effect," added Camino.

This manoeuvre campaign along with a few trim manoeuvres will make it possible to predict the exact time and location for the SMART-1 impact on September 3 with more accuracy. Projections based on the current orbit indicated that the spacecraft, if left as is, would impact the Moon on the far side, away from ground contact and visibility. The new location is on the Moon's near-side, at mid-southern latitudes.

[ANS thanks ESA and UniverseToday.com for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

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This week's ANS Editor,
JoAnne Maenpaa, K9JKM